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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/774,858	01/31/2001	Yoshihiro Izumi	55560(904)	9616

7590 07/26/2002
Dike, Bronstein, Roberts & Cushman LLP
130 Water Street
Boston, MA 02109

EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 07/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/774,858

Applicant(s)

IZUMI ET AL.

Examin r

Tarifur R Chowdhury

Art Unit

2871

-- The MAILING DATE of this c mmunication appears on the c ver sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) ✓
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 6(a), 6(b) and 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 7 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Shimada et al., (Shimada), USPAT 5,953,084.**
6. Shimada discloses and shows in Fig. 15, an active matrix substrate (31), comprising:

- electrode wires constituted by scanning electrodes (32) and signal electrodes (36a, 36b) that are arranged in a lattice;
- an insulating film (38) provided at least one the electrode wires so as to have openings (26a) in predetermined areas at least either on the scanning electrodes or on the signal electrodes; and
- a metal layer (23b) stacked on the electrodes in the openings.

Accordingly, claim 1 is clearly anticipated.

As to claims 7 and 12, Shimada also shows in Fig. 15 that a liquid crystal (applicant's electro-optical medium) (45) is driven by the active matrix substrate (31).

7. Claims 1, 2, 5, 7, 8, 11 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wakai et al., (Wakai), USPAT 5,166,085.

8. Wakai discloses in col. 9, lines 16-28 and shows in Fig. 9, an active matrix substrate (101) comprising:

- electrode wires constituted by scanning electrodes (102) and signal electrodes (106, 107) that are arranged in a lattice;
- an insulating film (108) provided at least one the electrode wires so as to have openings (109) in predetermined areas at least either on the scanning electrodes or on the signal electrodes; and
- a metal layer (119) stacked on the electrodes in the openings.

Accordingly, claim 1 is clearly anticipated.

As to claims 7 and 12, Wakai discloses that the active matrix substrate is used in a liquid crystal display.

As to claims 5 and 11, Wakai discloses a silicon nitride insulating film.

As to claims 2 and 8, Wakai discloses the use of copper as the contact metal film (col. 9, lines 48-49).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3, 4, 6, 9, 10, 13-18 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakai as applied to claims 1, 2, 5, 7, 8, 11 and 12 above.

12. As to claims 3 and 9, using more than one layer to form the metal layers is common and known in the art and thus would have been obvious to optimize device performance.

As to claims 4 and 10, it is common and known to use transparent conductive oxide film to form scanning electrodes or signal electrodes and thus would have been obvious to avail a proven material.

As to claims 6 and 13, it is common and known to form metal layers by techniques such as wet plating and thus would have been obvious to avail a proven technique.

As to claim 14, using the active matrix substrate in an image-capturing device is considered as intended use and thus would have been obvious. Common and known structure for an image capturing device includes a photoconductor.

As to claim 15, Wakai discloses the use of copper as the contact metal film (col. 9, lines 48-49).

As to claim 16, using more than one layer to form the metal layers is common and known in the art and thus would have been obvious to optimize device performance.

As to claim 17, it is common and known to use transparent conductive oxide film to form scanning electrodes or signal electrodes and thus would have been obvious to avail a proven material.

As to claim 18, Wakai discloses a silicon nitride insulating film.

As to claim 19, typically the photoconductor of an image capturing device is made of amorphous selenium.

As to claim 20, it is common and known for an image capturing device to have a luminescent layer.

As to claim 21, it is common and known to form metal layers by techniques such as wet plating and thus would have been obvious to avail a proven technique.

As to claim 22, the reference meets all the claimed structure as set forth above. The method recited in claim 22 concerning the step of forming of the claimed elements are inherently met by the disclosures.

As to claim 23, Wakai discloses a silicon nitride insulating film.

As to claim 24, Wakai discloses the use of copper as the contact metal film (col. 9, lines 48-49).

As to claims 25 and 26, electric plating or electroless plating are common and known ways way to form a metal layer and thus would have been obvious to avail proven techniques.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

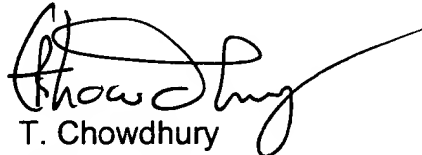
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746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

July 24, 2002



T. Chowdhury
Patent Examiner
Technology Center 2800